

ABSTRACT

[0055] A system establishes a path for distributing data through an optical network (115). The system includes an optical switch (205a) and a data distribution endpoint (105a). The optical switch (205a) establishes a first encryption key distribution path through the optical network (115), the first encryption key distribution path including multiple optical switches and optical links. The data distribution endpoint (105a) determines whether eavesdropping has occurred on the first encryption key distribution path using quantum cryptography. The optical switch (205a) further establishes a second data distribution path through the optical network (115) responsive to the eavesdropping determination. The second encryption key distribution path includes multiple optical switches and optical links.